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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/977,197	10/16/2001	Masato Shimada	Q66690	3614

7590

08/05/2003

SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC
2100 Pennsylvania Avenue, NW
Washington, DC 20037-3213

EXAMINER

NGUYEN, JUDY

ART UNIT	PAPER NUMBER
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2861

DATE MAILED: 08/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/977,197

Applicant(s)

SHIMADA ET AL.

Examiner

Judy Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 May 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 12-14, 16-18 and 21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 10, 11, 15, 19, 20 and 22 is/are rejected.
- 7) ☒ Claim(s) 6-9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 9.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of elected species II in Paper No. 7 is acknowledged.
2. Claims 12-14, 16-18, 21 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 7. **It is noted that applicant had indicated due to the amendment claim 19, claim 21 no longer depends from a multiple dependent claim and the improper objection to claim 21 should be withdrawn. The examiner agrees. However, claim 21 is now properly depended on multiple claims including non-elected claims. Hence, claim 21 is also being withdrawn as set forth above.**

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

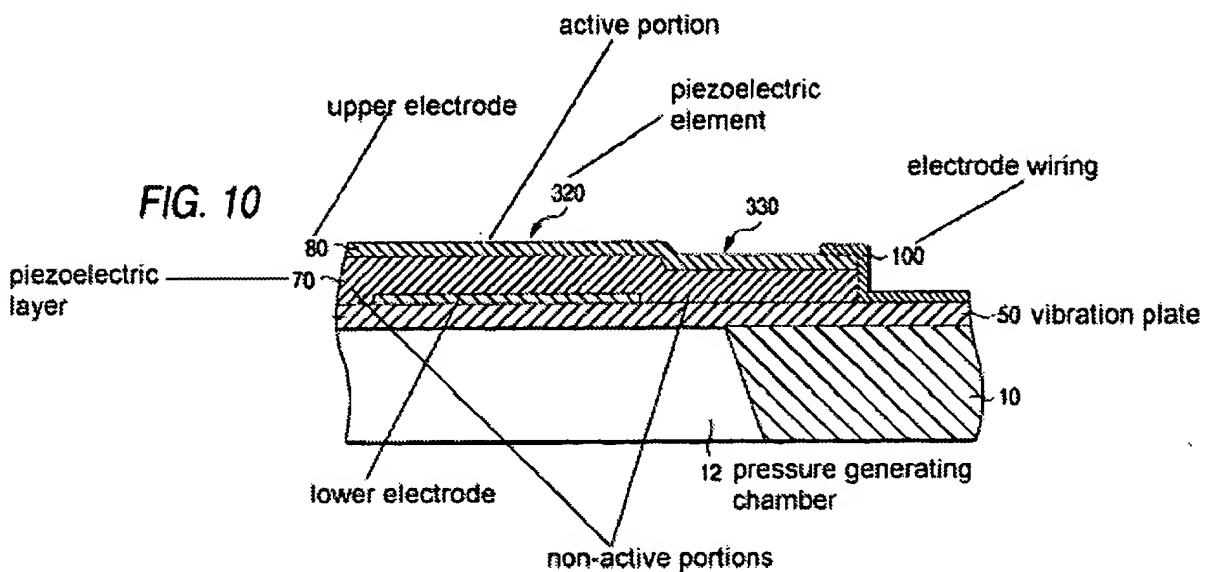
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-5, 10, 11, 15, 19, 20, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimada et al (EP 0 976 560 A2) in view of Furuhata et al (EP 0 903 234 A2).

Shimada et al discloses all features of the claimed invention except for a protection layer on the other end portion and a tip portion of the protection layer having a triangular shape. See particularly column 17, lines 11-15, column 18, paragraph [0147] and the illustration below for the major elements of the claimed invention.



However, Furuhashi et al discloses a protection layer (90) on an end portion.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the protection layer (90) as taught by Furuhashi et al at the other end portion in Shimada et al for the purpose of protecting the upper electrode and the piezoelectric element by covering them.

With respect to the tip portion of the protection layer having a particular shape, it has been held that changing the configuration of a claimed element is generally recognized as being within the level of ordinary skill in the art when absent of a persuasive evidence that the particular configuration of the claimed element was significant. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966). Therefore, it would have been obvious to one having ordinary skill in the art at the time the

invention was made to change the configuration of claimed element to have such portion in any shape including the one recited in the claim for the same purpose protecting the upper electrode and the piezoelectric element by covering them.

Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 1-5, 10, 11, 15, 19, 20, 22 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-3, 5-8, and 12 of co-pending Application No. 09/977,380 in view of Furuhashi et al (EP 0 903 234 A2). The claims in the co-pending Application include all features of the present claims except for a protection layer on the

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other end portion and a tip portion of the protection layer having a triangular shape.

However, Furuhashi et al discloses a protection layer (90) on an end portion.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the protection layer (90) as taught by Furuhashi et al at the other end portion in co-pending Application for the purpose of protecting the upper electrode and the piezoelectric element by covering them.

With respect to the tip portion of the protection layer having a particular shape, it has been held that changing the configuration of a claimed element is generally recognized as being within the level of ordinary skill in the art when absent of a persuasive evidence that the particular configuration of the claimed element was significant. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to change the configuration of claimed element to have such portion in any shape including the one recited in the claim for the same purpose protecting the upper electrode and the piezoelectric element by covering them.

This is a provisional obviousness-type double patenting rejection.

Allowable Subject Matter

7. Claims 6-9 would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims.

Response to Arguments

8. Applicant's arguments have been fully considered but they are not persuasive. Applicant argues that Furuhata's layer 90 and lead electrode 100 are not provided on opposite ends from each other and that electrode 100 is formed on layer 90. However, the claims do not recite that the layer and the electrode being provided on opposite ends from each other. The claims require that layer is on one end and the electrode on the other end is clearly illustrated in Figure 2A. The fact that the electrode is also formed on the layer 90 is irrelevant because the claims do not preclude from having other features. Applicant further argues that such layer fails to be provided **only** in an "end portion" as required by claim 1. However, claim 1 does not include any recitation that requires the layer to be provided **only** in the "end portion".
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Judy Nguyen whose telephone number is (703) 305-7062. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ben Fuller can be reached on (703) 308-0079. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3431 for regular communications and (703) 305-3431 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Judy Nguyen
Primary Examiner
August 2, 2003